

Appl. No. 10/643,388
Amdt. Dated January 18, 2005
Reply to Office action of October 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 **Claim 1 (original):** A refrigerator comprising:
2 a cabinet;
3 a first refrigerated compartment within the cabinet
4 having a door;
5 a second refrigerated compartment within the cabinet;
6 a dividing wall separating the first refrigerated
7 compartment from the second refrigerated compartment;
8 a duct connecting the first refrigerated compartment
9 for airflow communication with the second refrigerated
10 compartment;
11 a damper movable between an open position and a closed
12 position for controlling airflow within the duct;
13 a refrigeration apparatus having a refrigeration cycle
14 being measured from a first starting of the refrigeration
15 apparatus to a second consecutive starting of the
16 refrigeration apparatus, and an off cycle being a time
17 within said refrigeration cycle during which the
18 refrigeration apparatus is not operating;
19 a controller for controlling the damper; and
20 a door sensor connected to the controller for
21 detecting when the door is open;

22 wherein if the controller determines that the door has
23 remained closed for a set number of refrigeration cycles,
24 the controller maintains the damper in the closed position
25 during a subsequent consecutive off cycle.

1 **Claim 2 (original):** The refrigerator of claim 1,
2 wherein the refrigeration apparatus is a compressor.

1 **Claim 3 (original):** The refrigerator of claim 1,
2 wherein the set number of refrigeration cycles is three.

1 **Claim 4 (original):** The refrigerator of claim 1,
2 wherein the set number of refrigeration cycles is one.

1 **Claim 5 (previously presented):** An apparatus for
2 controlling airflow between compartments in a two
3 compartment refrigerator having a door, the apparatus
4 comprising:

5 a damper for opening and closing a duct between the
6 two compartments of the refrigerator;

7 a controller for controlling the opening and closing
8 of the damper; and

9 a door sensor connected to the controller for
10 detecting when the door is open;

11 wherein if the controller determines that the door has
12 remained closed for a set period, the controller closes

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13 and/or maintains the damper in the closed position during
14 a subsequent operation of a refrigeration apparatus.

1 **Claim 6 (original):** The apparatus of claim 5, wherein
2 the two compartments comprise a frozen food compartment and
3 a fresh food compartment, the door being associated with
4 the fresh food compartment.

1 **Claim 7 (original):** The apparatus of claim 5, wherein
2 the door sensor is a switch.

1 **Claim 8 (original):** The apparatus of claim 5, wherein
2 the set period is a set number of on/off cycles of a
3 compressor of the refrigerator.

1 **Claim 9 (original):** The apparatus of claim 8, wherein
2 the set number of on/off cycles is three.

1 **Claim 10 (original):** A self defrosting refrigerator
2 comprising:

3 a cabinet;

4 a first refrigerated compartment within the cabinet
5 having a first door;

6 a second refrigerated compartment within the cabinet
7 having a second door;

8 a dividing wall separating the first refrigerated
9 compartment from the second refrigerated compartment;
10 a duct connecting the first refrigerated compartment
11 for airflow communication with the second refrigerated
12 compartment;
13 a damper movable between an open position and a closed
14 position for controlling airflow within the duct;
15 a refrigeration apparatus within the cabinet; and
16 a controller for controlling the damper;
17 wherein the controller carries out a damper cleaning
18 operation in which the controller at least partially opens
19 and then at least partially closes the damper a set number
20 of times at a set interval.

1 **Claim 11 (original):** The refrigerator of claim 10
2 wherein the controller carries out the damper cleaning
3 operation prior to energizing an evaporator fan.

1 **Claim 12 (original):** The refrigerator of claim 10,
2 further comprising a defrosting apparatus, wherein the
3 controller carries out the damper cleaning operation
4 subsequent to an operation of the defrosting apparatus.

1 **Claim 13 (original):** The refrigerator of claim 10,
2 further comprising a defrosting apparatus, wherein the
3 controller carries out the damper cleaning operation

4 between an operation of the defrosting apparatus and a
5 subsequent consecutive energizing of the evaporator fan.

1 **Claim 14 (original):** The refrigerator of claim 10,
2 wherein during the cleaning operation the damper is moved
3 from a fully open position to a fully closed position.

1 **Claim 15 (original):** A damper cleaning apparatus for
2 a two compartment refrigerator having a damper for
3 controlling airflow between compartments, the damper
4 cleaning apparatus comprising:

5 a damper drive mechanism for opening and closing the
6 damper; and

7 a controller for controlling the damper drive
8 mechanism wherein the controller carries out a cleaning
9 operation by at least partially opening and then partially
10 closing the damper a set number of times at a set interval.

1 **Claim 16 (original):** The damper cleaning apparatus of
2 claim 15, wherein the controller carries out the damper
3 cleaning operation prior to an operation of the an
4 evaporator fan of the refrigerator.

1 **Claim 17 (original):** The damper cleaning apparatus of
2 claim 15, wherein the controller carries our the damper
3 cleaning operation subsequent to a defrost operation of the

4 refrigerator.

Claim 18 (canceled)

1 **Claim 19 (currently amended):** The A method of claim
2 18, further for cleaning a damper in a refrigerator
3 comprising a step of steps of:
4 at least partially opening the damper;
5 following the step of opening, waiting for a set
6 period and then at least partially closing the damper;
7 repeating the steps of at least partially opening and
8 waiting a set number of times; and
9 initiating a defrosting operation of the refrigerator
10 prior to the step of opening.

1 **Claim 20 (currently amended):** The A method of claim
2 18, further for cleaning a damper in a refrigerator
3 comprising a step of steps of:
4 at least partially opening the damper;
5 following the step of opening, waiting for a set
6 period and then at least partially closing the damper;
7 repeating the steps of at least partially opening and
8 waiting a set number of times; and
9 commencing a cooling operation of the refrigeration
10 apparatus following the step of repeating.

1 **Claim 21 (previously presented):** The refrigerator of
2 claim 1, wherein the controller opens the damper during an
3 off cycle when the second refrigerated compartment requires
4 cooling.

1 **Claim 22 (previously presented):** A refrigerator
2 comprising:

3 a cabinet;
4 a first refrigerated compartment within the cabinet
5 having a door;
6 a second refrigerated compartment within the cabinet;
7 a dividing wall separating the first refrigerated
8 compartment from the second refrigerated compartment;
9 a duct connecting the first refrigerated compartment
10 for airflow communication with the second refrigerated
11 compartment;
12 a damper movable between an open position and a closed
13 position for controlling airflow within the duct;
14 a refrigeration apparatus having a refrigeration cycle
15 being measured from a first starting of the refrigeration
16 apparatus to a second consecutive starting of the
17 refrigeration apparatus, and an off cycle being a time
18 within said refrigeration cycle during which the
19 refrigeration apparatus is not operating;
20 a controller for controlling the damper; and
21 a door sensor connected to the controller for

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22 detecting when the door is open;

23 wherein if the controller determines that the door
24 been opened during a set number of prior refrigeration
25 cycles, the controller opens the damper when the second
26 refrigerated compartment requires cooling.